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EXAMINER

ELMORE, JOHN E

ART UNIT PAPER NUMBER

2134

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/847,865	<b>Applicant(s)</b> KILGORE, BRIAN	
	<b>Examiner</b> John E Elmore	<b>Art Unit</b> 2134	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 May 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                   |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### **Detailed Action**

1. Claims 1-32 have been examined.

### ***Objections to Specification***

2. The disclosure is objected to because of the following informalities: the description corresponding to "base station processor" refers to "32a" (see page 8, line 2), but the element in the drawing that presumably corresponds to this reference is labeled "16a," whereas "32a" indicates a firewall. Appropriate correction is required.

### ***Claim Objections***

3. Claim 1 is objected to because of the following informalities: "another" in line 10 should presumably read --other--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-13, 16, 17, 22, 26 and 31 are rejected under 35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 31 recite the relative term "desired" which renders the claim indefinite. The term "desired" is not defined by claim 1 or claim 31; the specification does not provide a standard for ascertaining the meaning of the otherwise subjective term; and one of ordinary skill in the art would not reasonably be apprised of the scope of the invention. The claim as read could readily apply to any mobile user profile since the absence of information regarding a firewall configuration could be interpreted as a desire for no firewall restrictions. In the interest of compact prosecution, the limitation "indicative of a desired firewall configuration corresponding to the mobile user" is ignored for the purpose of further examination. Claims 2-13 are rejected by virtue of their dependence on claim 1.

Claims 4, 5, 16, and 17 recite the relative term "Base Station Processor (BSP)" which renders the claim indefinite. The term "Base Station Processor (BSP)" is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Although the specification provides some discussion of a BSP, the scope of this limitation is unclear. In the interest of compact prosecution, the limitation "Base Station Processor (BSP)" is understood to mean "a base station capable of connecting directly to the Internet."

Claims 7 and 22 recite the relative term "Wireless Internet Facility (WIF)" which renders the claim indefinite. The term "Wireless Internet Facility (WIF)" is not defined by claim 7 or claim 22, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of

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the scope of the invention. Although the specification provides some discussion of a WIF, the scope of this limitation is unclear. In the interest of compact prosecution, the limitation "Wireless Internet Facility (WIF)" is understood to mean "a central repository containing one or more mobile user profiles." Claims 2-13 are rejected by virtue of their dependence on claim 1.

Claims 13 and 26 recite the term "password scanning" which is an indefinite term. The term "password scanning" is not defined by the claim; the specification does not provide a description of the term; and one of ordinary skill in the art would not reasonably be apprised of the scope of the invention since the term is not commonly used in the art. In the interest of compact prosecution, the limitation "password scanning" is ignored for the purpose of further examination.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-3, 8, 10-12, 14, 15, 18, 20, 23-25, 31 and 32 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Bezaire et al. (USPN 5,758,088 – published May 26, 1998), hereinafter Bezaire, in view of W. C. Yee, hereinafter Yee, ("Mobile Communications Design Fundamentals," Second Edition, John Wiley & Sons, 1993).

**Regarding independent claim 1**, Bezairé discloses a method of protecting a mobile wireless user via a firewall application in a wireless transceiver:

defining a mobile user profile (subscriber information; column 3, lines 29-49, and column 4, lines 49-59); and

establishing the firewall configuration at a firewall application in the wireless transceiver corresponding to the current location of the mobile user (message server, wireless gateway server and wireless service provider equate to a wireless transceiver with a firewall; column 1, lines 34-52; column 4, line 27-33; column 5, lines 13-19; and column 6, 6-11), the wireless transceiver operable for wireless communication with the mobile user via a wireless access unit (column 4, 37-39 and Figure 1).

But Belzaire does not explain establishing the same firewall configuration at another wireless transceiver when the user is located in the area corresponding to the other wireless transceiver, a limitation involving handoff that is outside the scope of the disclosure.

However, Yee teaches the same configuration at another wireless transceiver when the user is located in the area corresponding to the other wireless transceiver (handoff in the context of a narrowband cellular system; section 5.5.2) for the purpose of allowing mobility while avoiding saturation at any one base station. Therefore, it would be obvious to a person of ordinary skill in the art at the time the invention was made to modify the method of Bezairé to establish the same firewall configuration at another wireless transceiver when the user is located in the area corresponding to the other

wireless transceiver. One would be motivated to do so in order to permit mobility while avoiding saturation at any one base station. Such a modification would be straightforward because Belzaire discloses a wireless service provider that supports two-way alphanumeric paging (column 4, lines 1-2), which utilizes a narrowband cellular system known as narrowband PCS. It follows that a mobile access unit roaming from one cell to another effectively means that the access unit is roaming from one wireless transceiver to another. And since Belzaire teaches that the firewall is applied before the messages are forwarded to the base station in the cell (column 4, lines 29-37), it is obvious that the firewall configuration remains the same at another wireless transceiver when the user is located in the area corresponding to the other wireless transceiver.

**Regarding dependent claim 2**, Bezairé further discloses a firewall configuration indicative of a set of firewall characteristics corresponding to a particular mobile user (rules for accepting messages particular to each user; column 3, lines 39-44).

**Regarding dependent claim 3**, Bezairé also teaches a firewall that is operable to selectively provide authorized access via the wireless transceiver (column 3, lines 26-35, and column 4, 29-33).

**Regarding dependent claim 8**, Bezairé also teaches the establishment of a firewall configuration that comprises an indexed lookup according to a unique identifier indicative of the particular mobile user (column 3, lines 57-60).

**Regarding dependent claim 10**, Bezairé also teaches that the firewall is located on a wired network side of a wireless link (column 3, lines 18-21).

**Regarding dependent claim 11**, Bezaire also teaches that the wired side corresponds to an ISP side of the wireless link, the ISP side connected to a public access network (wired-side information service connected to a public access network; column 1, lines 55-60; column 2, lines 57-67; column 3, lines 21-25 and 43-67; and column 4, lines 27-35).

**Regarding dependent claim 12**, Bezaire also teaches that the firewall selectively allows message packet transmissions by determining if a message packet corresponds to the firewall characteristics of a particular mobile user profile (column 3, lines 21-25 and 43-7; and column 4, lines 27-35).

**Regarding independent claim 14**, Bezaire discloses a system for protecting a mobile wireless user via a firewall comprising:

- a subscriber access unit in communication with the mobile wireless user, the access unit operable to transmit and receive wireless transmissions (column 2, lines 1-2);

- a wireless transceiver in wireless communication with the access unit, the wireless transceiver operable for communication via a public access network (message server, wireless gateway server and wireless service provider equate to a wireless transceiver; column 1, lines 34-52; column 3, lines 1-25; column 4, lines 24-39; and Figure 1); and

- a firewall application in the wireless transceiver, the firewall application operable to establish a firewall configuration to selectively forward wireless transmissions according to a mobile user profile corresponding to the mobile wireless



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user (firewall located in the message server and wireless gateway server, which comprises part of the wireless transceiver; column 4, lines 20-39).

But Belzaire does not explain a handoff manager operable to establish communications with a second wireless transceiver when the mobile wireless user is in an area corresponding to the second wireless transceiver, wherein the communications with the second wireless transceiver corresponds to the mobile user profile, as it is outside the scope of the disclosure.

However, the handoff manager simply describes the process wherein the same firewall configuration is applied to another wireless transceiver while roaming from one base station to another. As such, claim 14 is rejected for the same rationale of Belzaire in view of Lee as provided in the 35 U.S.C. 103(a) rejection of claim 1.

**Dependent claim 15** is rejected on the same basis as claim 3.

**Dependent claim 18** is rejected on the same basis as claim 8.

**Dependent claim 20** is rejected on the same basis as claim 2.

**Dependent claim 23** is rejected on the same basis as claim 10.

**Dependent claim 24** is rejected on the same basis as claim 11.

**Dependent claim 25** is rejected on the same basis as claim 12.

**Independent claim 31** is rejected on the same basis as claim 1.

**Regarding independent claim 32**, Bezaire discloses a system for protecting a mobile wireless user via a firewall comprising:

an access unit in communication with the mobile wireless user, the access unit operable to transmit and receive wireless transmissions via a wireless network (column 2, lines 1-2 and 25-27);

a wireless network access gateway connected to a public access network and operable to provide a access between the wireless network and a public access unit (column 3, lines 1-25);

a firewall application in the wireless network access gateway, the firewall application operable to establish a firewall configuration to selectively forward wireless transmissions according to a mobile user profile corresponding to the mobile wireless user (message server and wireless gateway server equate to the wireless network access gateway; column 3, lines 1-25, column 4, lines 20-39, and Figure 1).

But Belzaire does not explain

a handoff manager operable to establish the selective communications with a second wireless transceiver when the mobile wireless user is in an area corresponding to the second wireless transceiver, wherein the communications with the second wireless transceiver corresponds to the mobile user profile; and

a plurality of wireless transceivers, the wireless transceivers in selective wireless communication with the access unit.

However, Yee teaches both a plurality of wireless transceivers, each in selective communication with the access unit, and a handoff manager operable to establish the selective communications with a second wireless transceiver when the mobile wireless user is in an area corresponding to the second wireless transceiver, wherein the

communications with the second wireless transceiver corresponds to the mobile user profile for the purpose of allowing mobility while avoiding saturation at any one base station (handoff in the context of a narrowband cellular system; see section 5.5.2).

Therefore, it would be obvious to a person of ordinary skill in the art at the time the invention was made to modify the method of Bezairé to establish a plurality of wireless transceivers, each in selective communication with the access unit, and a handoff manager operable to establish the selective communications with a second wireless transceiver when the mobile wireless user is in an area corresponding to the second wireless transceiver, for the purpose of allowing mobility while avoiding saturation at any one base station. One would be motivated to do so in order to permit mobility while avoiding saturation at any one base station. Such a modification would be straightforward because Bezairé discloses a wireless service provider that supports two-way alphanumeric paging (column 4, lines 1-2), which utilizes a narrowband cellular system known as narrowband PCS; thus, it follows that a mobile access unit roaming from one cell to another effectively means that the access unit is roaming from one wireless transceiver to another.

6. **Claims 4, 5, 16, 17, 27 and 28 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Bezairé and Yee as applied to claims 1-3, 8, 10-12, 14, 15, 18, 20, 23-25, 31 and 32 above, and further in view of Nokia A032 brochure, hereinafter Nokia, ("Nokia A032," September 14, 2000, as cited in the IDS).

**Regarding dependent claim 4,** Bezairé and Yee are relied upon for teachings in regard to claim 1. Although Bezairé and Yee disclose that communication protocol

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involving the wireless transceiver would support TCP/IP and the Internet addressing scheme (Belzaire, column 3, lines 21-25) and that the wireless transceiver was comprised of a base station, Belzaire does not explain that the wireless transceiver is a Base Station Processor (BSP) (a base station capable of connecting directly to the Internet). However, Nokia teaches a wireless transceiver as a base station that supports TCP/IP (column 3, line 9), connectivity to the Internet (column 1, paragraph 1), and built-in firewall security (column 1, paragraphs 4-6), for the purpose of communicating with wireless access units of a shorter range. Therefore, it would be obvious to a person of ordinary skill in the computer art at the time the invention was made to modify the method of Bezaire and Yee to replace the wireless server, the wireless gateway server and the wireless service provider, collectively acting as a wireless transceiver, with a BSP such as the Nokia A032. The BSP provides the necessary processing power, memory, interfaces, and wireless connectivity with which to function as a wireless transceiver. One would be motivated to use a BSP in order to provide an access unit with direct connectivity to LANs and the Internet, particularly for the transmission of message traffic, where the use of a wireless service provider is unnecessary or impracticable, such as where access units employ the short-range IEEE 802.11b standard.

**Dependent claim 5** is rejected on the same basis as claim 4, given that Belzaire and Yee teach an internetworking gateway (wireless gateway server; see Belzaire, column 3, lines 18-25) in connection with a BSP.

**Dependent claim 16** is rejected on the same basis as claim 4.

**Dependent claim 17** is rejected on the same basis as claim 5.

**Regarding independent claim 27**, Bezaire and Yee disclose a method of protecting mobile wireless users via a firewall application in a base station comprising:

defining a first mobile user profile indicative of a desired firewall configuration corresponding to the first mobile user (user A is a subscriber; see Belzaire, column 3, lines 26-51);

defining a second mobile user profile indicative of a desired firewall configuration corresponding to a second mobile user (user B is a subscriber; see Belzaire, column 3, lines 26-51);

receiving message packets at the base station (messages conform to TCP/IP and are received at a base station, as discussed in the rejection to claim 4 above);

when the message packets are directed to the first mobile user, determining, according to the first mobile user profile, whether to forward the message packets to the first mobile user (see Belzaire, column 3, lines 52-55, and column 4, lines 20-39); and

when the message packets are directed to the second mobile user, determining, according to the second mobile user profile, whether to forward message packets directed to the second mobile user (see Belzaire, column 3, lines 52-55, and column 4, lines 20-39).

But Bezaire and Yee do not explain a method for establishing the firewall configuration at a firewall application in the base station.

However, Nokia teaches a firewall application in a more integrated base station that provides a wireless access unit with a direct connection to the Internet, as discussed in the rejection of claim 4 above. Therefore, it would be obvious to a person of ordinary skill in the computer art at the time the invention was made to modify the method of Bezaire and Yee to establish the firewall configuration at a firewall application in the base station. One would be motivated to do so in order to provide a more integrated and efficient system.

**Regarding dependent claim 28**, Bezaire and Yee further disclose that the first mobile user profile and the second mobile user profile are different (each user creates a custom profile; column 3, lines 43-51).

7. **Claims 6, 7, 21 and 22 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Bezaire and Yee as applied to claims 1-3, 8, 10-12, 14, 15, 18, 20, 23-25, 31 and 32 above, and further in view of Traversat et al., hereinafter Traversat, (USPN 6,161,125 – published date Dec. 12, 2000).

**Regarding dependent claim 6**, Bezaire and Yee do not explain a central repository wherein the firewall configuration corresponding to each of a plurality of mobile users is stored.

However, Traversat teaches a central repository wherein configuration information corresponding to each of a plurality of mobile users is stored (column 2, lines 44-54, and column 3, lines 27-32) which allows the network administrator to manage subsystem configurations from a single server. Traversat also teaches that a central repository is useful where mobile devices have insufficient memory to store all

the configuration information. Therefore, it would be obvious to a person of ordinary skill in the computer art at the time the invention was made to modify the method of Bezaire and Yee to utilize the central repository taught by Traversat. One would be motivated to do so because a server in the information service wide area network would provide a convenient means for the network administrator to manage firewall configurations as well as provide sufficient memory to store the firewall configurations for each user.

**Dependent claim 7** is rejected on the same basis as claim 6.

**Dependent claim 21** is rejected on the same basis as claim 6.

**Dependent claim 22** is rejected on the same basis as claim 6.

8. **Claims 9 and 19 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Bezaire and Yee as applied to claims 1-3, 8, 10-12, 14, 15, 18, 20, 23-25, 31 and 32 above, and further in view of Newton's Telecom Dictionary, hereinafter Newton, (Newton's Telecom Dictionary, Eighth Edition, Flatiron Publishing, 1994).

**Regarding dependent claim 9**, Bezaire and Yee further disclose that the wireless transceiver associates the wireless access unit with the subscriber ID of the mobile user (see Bezaire, column 4, lines 32-33), but Bezaire and Yee do not explain that the unique identifier used to associate a wireless device with a subscriber is an index selected from the group consisting of a subscriber ID and an electronic serial number (ESN). However, Newton teaches that an ESN is the unique number assigned by the manufacturer of a cellular device that is used by a cellular service provider as the only means to uniquely identify that particular device (page 403). Therefore, it would be

obvious to a person of ordinary skill in the computer art at the time the invention was made to modify the method of Bezaire and Yee to utilize the unique number assigned by the manufacturer to the cellular device, or by logical extension the ESN of any wireless device, in order to associate that device with a subscriber ID. One would be motivated to do so because this is the only practical means for a wireless transceiver to identify a device. A means of merely identifying the subscriber would not necessarily identify the device being used, particularly where a subscriber uses more than one device (see Belzaire, column 3, lines 39-41).

**Dependent claim 19** is rejected on the same basis as claim 9.

9. **Claim 13 and 26 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Bezaire and Yee as applied to claims 1-3, 8, 10-12, 14, 15, 18, 20, 23-25, 31 and 32 above, and further in view of Chapman et al., hereinafter Chapman, (Chapman, B.D., Cooper, S., Zwicky, E.D., "Building Internet Firewalls, 2<sup>nd</sup> Edition," O'Reilly, June 2000).

**Regarding dependent claim 13**, Bezaire and Yee do not explain that the firewall characteristics are selected from the group consisting of port numbers, application IDs, source, destination, content filters, IP address, machine names, virus detection, denial of service detection, and TCP/P flags. However, Chapman teaches firewall characteristics which are selected from the group consisting of port numbers (see section 4.1.1.3), application IDs (see section 9.3.1), source (see section 4.1.1.2), destination (see section 4.1.1.2), content filters (see section 15.2.4), IP address (see section 4.1.1.2), machine names (see section 2.7), virus detection (see section 15.2.4), denial of service detection (see section 5.2 and section 8.1.2), and TCP/P flags (see



section 4.1.1.3). Moreover, Chapman teaches a firewall for the purpose of packet filtering as the set consisting of port numbers, source, and destination (see section 8.12). As claim 13 takes the form of a Markush-type generic claim, which includes a plurality of alternatively usable members, the finding that at least one of the useable members anticipates or renders obvious the Markush-type claim thus provides justification to reject the whole claim (see MPEP section 803.2). Therefore, the claim is rejected because it would be obvious to a person of ordinary skill in the computer art at the time the invention was made to modify the method of Bezaire and Yee to define the firewall characteristics as the set of port numbers, source, and destination. One would be motivated to do so because the firewall characteristics as selected provide a means for packet filtering that can discriminate on the basis of applications that use particular ports.

**Dependent claim 26** is rejected on the same basis as claim 13.

### ***Conclusion***

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rysavy, P., "Making The Call With Two-Way Paging," Network Computing January 15, 1997, available at <http://www.rysavy.com/Articles/twoway.htm>.

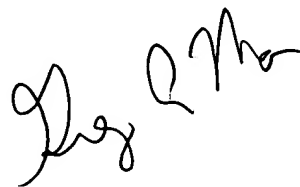
Dornan, A., "The Essential Guide to Wireless Communications Applications," Prentice Hall, Dec. 12, 2000.

Stemm, M., and Katz, R., "Vertical Handoffs in Wireless Overlay Networks,"  
Mobile Networks and Applications, 1996.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John E. Elmore whose telephone number is 703-306-5538. The examiner can normally be reached on M-Th 9-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Morse can be reached on 703-308-4789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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